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RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/772,103

DATE: 02/09/2001
 TIME: 09:36:32

Input Set : A:\seqlist.txt
 Output Set: N:\CRF3\02092001\I772103.raw

3 <110> APPLICANT: Carreno, Beatriz M.
 4 Wood, Clive
 5 Turner, Katherine
 6 Collins, Mary
 7 Gray, Gary S.
 8 Morris, Donna
 9 O'Hara, Denise
 10 Hinton, Paul
 11 Tsurushita, Naoya
 13 <120> TITLE OF INVENTION: ANTIBODIES AGAINST CTLA4 AND USES THEREFOR
 15 <130> FILE REFERENCE: GNN-009CP
 C--> 17 <140> CURRENT APPLICATION NUMBER: US/09/772,103
 C--> 18 <141> CURRENT FILING DATE: 2001-01-23
 20 <150> PRIOR APPLICATION NUMBER: 60/178,473
 21 <151> PRIOR FILING DATE: 2000-01-27
 23 <160> NUMBER OF SEQ ID NOS: 10
 25 <170> SOFTWARE: PatentIn Ver. 2.0
 27 <210> SEQ ID NO: 1
 28 <211> LENGTH: 672
 29 <212> TYPE: DNA
 30 <213> ORGANISM: Homo sapiens
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 37 gcccacccctg ctgtgtact ggcacgcg cggggatcg ccaagttgt gtgtgagttat 180
 38 gcatatcccg gcaaaggccac tgaggccgg gtgacagtgc ttccggcaggc tgacagccag 240
 39 gtgactgaat tctgtgcggc aacctacatg acggggatgt agttgacattt cctagatgtat 300
 40 tccatctgca cgggcaccc tcaatggaaat caagtgaaacc tcaactatcca aggactgagg 360
 41 gccatggaca cgggactcta catctgcaag gtggagctca tgtacccacc gccatactac 420
 42 ctggcatacg gcaacggaaac ccaggatttat gtaattgtatc cagaaccgtg cccagattct 480
 43 gacttcctcc tctggatct tgcacgtt agttcggtt tagttttta tagtttctc 540
 44 ctcacatgtg ttctttttag caaaatgtct aaaaaaaagaa gcccctttac aacagggttc 600
 45 tatgtaaaaa tgcccccaac agagccagaa tgtgaaaagc aatttcagcc ttattttatt 660
 46 cccatcaatt ga 672
 48 <210> SEQ ID NO: 2
 49 <211> LENGTH: 223
 50 <212> TYPE: PRT
 51 <213> ORGANISM: Homo sapiens
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 57 Thr Arg Thr Trp Pro Cys Thr Leu Leu Phe Phe Leu Leu Phe Ile Pro
 58 20 25 30
 60 Val Phe Cys Lys Ala Met His Val Ala Gln Pro Ala Val Val Leu Ala
 61 35 40 45
 63 Ser Ser Arg Gly Ile Ala Ser Phe Val Cys Glu Tyr Ala Ser Pro Gly

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64      50          55          60
66 Lys Ala Thr Glu Val Arg Val Thr Val Leu Arg Gln Ala Asp Ser Gln
67  65          70          75          80
69 Val Thr Glu Val Cys Ala Ala Thr Tyr Met Met Gly Asn Glu Leu Thr
70          85          90          95
72 Phe Leu Asp Asp Ser Ile Cys Thr Gly Thr Ser Ser Gly Asn Gln Val
73          100         105         110
75 Asn Leu Thr Ile Gln Gly Leu Arg Ala Met Asp Thr Gly Leu Tyr Ile
76          115         120         125
78 Cys Lys Val Glu Leu Met Tyr Pro Pro Pro Tyr Tyr Leu Gly Ile Gly
79          130         135         140
81 Asn Gly Ala Gln Ile Tyr Val Ile Asp Pro Glu Pro Cys Pro Asp Ser
82 145          150          155          160
84 Asp Phe Leu Leu Trp Ile Leu Ala Ala Val Ser Ser Gly Leu Phe Phe
85          165          170          175
87 Tyr Ser Phe Leu Leu Thr Ala Val Ser Leu Ser Lys Met Leu Lys Lys
88          180          185          190
90 Arg Ser Pro Leu Thr Thr Gly Val Tyr Val Lys Met Pro Pro Thr Glu
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100 <213> ORGANISM: Mus musculus
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104 gtgcagctga aggagtccagg acctggcctg gtggcgccct cacagacgt gtccatca 120
105 tgcactgtct ctgggttttc attaaccagc tatgggttat attgggttcg ccagcctcca 180
106 gggaaagggtc tggatgtggat gggagtaata tagggctgtt ggaaccacaa attataatc 240
107 ggctctatgt ccagactgag catcagcaaa gacaactcca agagccaagt tttcttaaaa 300
108 atgacgttc tgcaaaactga tgacacagcc atgtactact gtgccagggg ccccccgcac 360
109 gctatgtga agagagggtc tgcataggac tactggggac aaggaaacctc agtcatcgtc 420
110 tcctca
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113 <211> LENGTH: 142
114 <212> TYPE: PRT
115 <213> ORGANISM: Mus musculus
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122          20          25          30
124 Pro Ser Gln Ser Leu Ser Ile Thr Cys Thr Val Ser Gly Phe Ser Leu
125          35          40          45
127 Thr Ser Tyr Gly Val Tyr Trp Val Arg Gln Pro Pro Gly Lys Gly Leu
128          50          55          60
130 Glu Trp Leu Gly Val Ile Trp Ala Gly Gly Thr Thr Asn Tyr Asn Ser
131  65          70          75          80

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133 Ala Leu Met Ser Arg Leu Ser Ile Ser Lys Asp Asn Ser Lys Ser Gln
134 85 90 95
136 Val Phe Leu Lys Met Ser Ser Leu Gln Thr Asp Asp Thr Ala Met Tyr
137 100 105 110
139 Tyr Cys Ala Arg Gly Pro Pro His Ala Met Met Lys Arg Gly Tyr Ala
140 115 120 125
142 Met Asp Tyr Trp Gly Gln Gly Thr Ser Val Ile Val Ser Ser
143 130 135 140
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147 <211> LENGTH: 384
148 <212> TYPE: DNA
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153 agaggacaaa atgttctcac ccagtctcca gcaatcatgc ctgcacatcc aggggagaag 120
154 gtcaccaatq a ctcgcagtgc cacctcaagt ataacttaca tgcctcgta ccacgagaq 180
155 tcaggatctt ccccaagact ctgttattt gacacatcca acctggcttc tggagtcct 240
156 gttcgctca gtggcagtgg gtctgggacc ttcattcttc tcacaatcag ccgaatggag 300
157 gctgaagatg ctgcaccaatq ttactyccag cagtggagta gttacccgct cacgttcggt 360
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161 <211> LENGTH: 128
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163 <213> ORGANISM: Mus musculus
165 <400> SEQUENCE: 6
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167 1 5 10 15
169 Val Ile Leu Ser Arg Gly Gln Asn Val Leu Thr Gln Ser Pro Ala Ile
170 20 25 30
172 Met Pro Ala Ser Pro Gly Glu Lys Val Thr Met Thr Cys Ser Ala Thr
173 35 40 45
175 Ser Ser Ile Thr Tyr Met Ser Trp Tyr Gln Gln Lys Ser Gly Ser Ser
176 50 55 60
178 Pro Arg Leu Leu Ile Tyr Asp Thr Ser Asn Leu Ala Ser Gly Val Pro
179 65 70 75 80
181 Val Arg Phe Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile
182 85 90 95
184 Ser Arg Met Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp
185 100 105 110
187 Ser Ser Tyr Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
188 115 120 125
191 <210> SEQ ID NO: 7
192 <211> LENGTH: 413
193 <212> TYPE: DNA
194 <213> ORGANISM: Artificial Sequence
196 <220> FEATURE:
197 <223> OTHER INFORMATION: Description of Artificial Sequence: Humanized mouse
199 <400> SEQUENCE: 7
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201 catactgtcc agaggagata tccagatgac ccagtctcca tctccctat ccgcacgtt 120
202 ggggacaggg tcaccataac ctgtatgtcc actcaagta taacttacat gtccctgtate 180
203 agcagaagcc agggaaaggct cccaaagttc tggatgttgc acatccaaac ctggctctgg 240
204 ggtacctaagc cgcttcatgtg gcaatgggtc tgggaccgac tacacactca caatagcagc 300
205 ctgcayccag aagatttgc cactattac tggcagcagt ggagtagtta cccctcactgt 360
206 tcggtgagg gaccaagttt gagataaaac gtaatgttac tccaaagtct aga 413
208 <210> SEQ ID NO: 8
209 <211> LENGTH: 128
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211 <213> ORGANISM: Artificial Sequence
213 <220> FEATURE:
214 <223> OTHER INFORMATION: Description of Artificial Sequence: Humanized mouse
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218 1 5 10 15
220 Val Ile Leu Ser Arg Gly Asp Ile Gln Met Thr Gln Ser Pro Ser Ser
221 20 25 30
223 Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Ser Ala Thr
224 35 40 45
226 Ser Ser Ile Thr Tyr Met Ser Trp Tyr Gln Gln Lys Pro Gly Lys Ala
227 50 55 60
229 Pro Lys Leu Leu Ile Tyr Asp Thr Ser Asn Leu Ala Ser Gly Val Pro
230 65 70 75 80
232 Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile
233 85 90 95
235 Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Trp
236 100 105 110
238 Ser Ser Tyr Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
239 115 120 125
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243 <211> LENGTH: 460
244 <212> TYPE: DNA
245 <213> ORGANISM: Artificial Sequence
247 <220> FEATURE:
248 <223> OTHER INFORMATION: Description of Artificial Sequence: Humanized mouse
250 <400> SEQUENCE: 9
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252 tcctgtccca ggtgcacgtg caagaggtagt gacctggccgtt ggtgaagccc tcacagacac 120
253 tggcttgac ttgcactgtc tctgggtttt cattaaacccat atatgggtta tattgggttc 180
254 gcccggccca agggaaagggt ctggagtggtc tggggatataat atgggctgggt ggtaccacaa 240
255 attataattt ggtctctatgt tccagactga caatcagcaaa agacacatcc aagaaccaag 300
256 ttcccttaaa actcaaggtt gtgtactgcagc cgacacacgc cgtctactac tggcccgag 360
257 gccccccgca cgctatgtt aagagaggctt atgttatggta ctactggggta caaggaaccc 420
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263 <213> ORGANISM: Artificial Sequence
265 <220> FEATURE:

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269 Met Ala Val Leu Val Leu Phe Leu Cys Leu Val Ala Phe Pro Ser Cys
270 1 5 10 15
272 Val Leu Ser Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys
273 20 25 30
275 Pro Ser Gln Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu
276 35 40 45
278 Thr Ser Tyr Gly Val Tyr Trp Val Arg Gln Pro Pro Gly Lys Gly Leu
279 50 55 60
281 Glu Trp Leu Gly Val Ile Trp Ala Gly Gly Thr Thr Asn Tyr Asn Ser
282 65 70 75 80
284 Ala Leu Met Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln
285 85 90 95
287 Val Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr
288 100 105 110
290 Tyr Cys Ala Arg Gly Pro Pro His Ala Met Met Lys Arg Gly Tyr Ala
291 115 120 125
293 Met Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
294 130 135 140

VERIFICATION SUMMARY
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L:18 M:271 C: Current Filing Date differs, Replaced Current Filing Date